

CAUTION

PLEASE READ THE LIFT TRUCK OPERATORS MANUAL AND THE ROLOADER OPERATORS ATTACHMENT MANUAL BEFORE ATTEMPTING TO OPERATE THE ROLOADER.

WARNING

THE ROLOADER MUST BE SIDE SHIFTED TO WITHIN 1 INCH OF THE STORAGE RACK BEFORE REMOVING OR INSERTING THE LOAD. FAILURE TO COMPLY WITH THIS PROCEDURE COULD RESULT IN THE PREMATURE FAILURE OF THE MAST COMPONENTS AND OR THE TIPPING OF THE LIFT TRUCK.

CALL 1-800-359-3052 FOR AN OPERATOR INSTRUCTION MANUAL

SUPERIOR ENGINEERING, INC.

P.O. BOX 547 BELTON, SC 29627

!!WARNING!!

HYDRAULIC REQUIREMENTS

THE LIFT TRUCK MANUFACTURERS HAVE CONTINUED TO INCREASE THE GALLONS PER MINUTE OF FLOW AND THE MAXIMUM PRESSURE OF THE HYDRAULIC SYSTEM FOR THE PAST FEW YEARS.

THIS ENABLES THE LIFT TRUCKS TO LIFT FASTER WITH SMALLER CYLINDER DIAMETERS THAT ALSO INCREASE THE OPERATOR'S VISIBILITY.

THE ROLOADER **DOES NOT REQUIRE** THIS MUCH FLOW OR PRESSURE AND CAN FAIL PREMATURELY IF OPERATED UNDER THESE CONDITIONS. PLEASE REFER TO THE ROLOADER HYDRAULIC REQUIREMENTS PAGE FOR THE CORRECT SPECIFICATIONS.

IF THE MANUFACTURE OF YOUR LIFT TRUCK DOES NOT OFFER AN ADJUSTABLE PSI AND FLOW CONTROL VALVE FOR EACH AUXILIARY FUNCTION OF THE HYDRAULIC SYSTEM, PLEASE CONTACT SUPERIOR ENGINEERING AT 1-800-359-3052 FOR TECHNICAL ASSISTANCE.

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INSTRUCTIONS FOR MOUNTING SUPERIOR ENGINEERING

NON-ROTATING ROLOADER ATTACHMENT

1. YOUR ROLOADER HAS FORK POCKETS AND IS DESIGNED TO BE MOUNTED ON THE FORKS. TO MOUNT THE ROLOADER UNIT TO YOUR FORKS IT IS NECESSARY TO DRILL A 9/16 DIA. HOLE IN EACH FORK OR USE THE MOUNTING TABS IF YOUR TRUCK IS AN ORDER PICKER. THE HOLES MUST BE DRILLED 6" FROM FACE OF FORKS AND IN CENTER OF FORKS. ADJUST FORK SPACING UNTIL HOLES ARE 22 INCHES APART. SLIDE FORKS INTO FORK POCKETS UNTIL LOCK PINS CAN BE INSERTED. LOCK PINS IN PLACE WITH HAIRPIN COTTERS.

2. RUN HYDRAULIC HOSE OR STEEL HYDRAULIC TUBING (WHICHEVER IS MOST CONVENIENT) FROM HYDRAULIC JUNCTION BLOCK ON TRUCK'S FORK CARRIAGE TO THE FITTINGS ON THE ROLOADER.

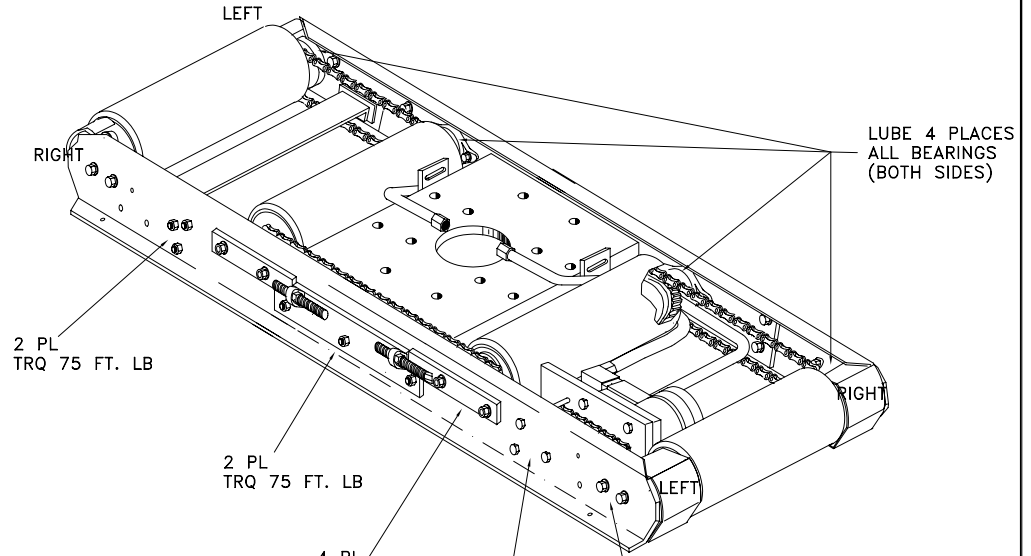
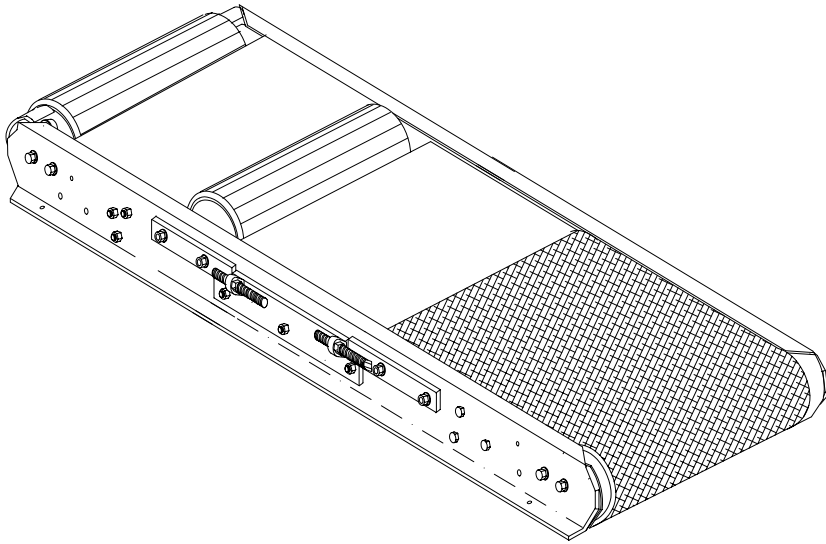
3. CONNECT ELECTRICAL WIRES FROM ROLOADER TO TRUCK'S ELECTRICAL SYSTEM AS PER THE WIRING SCHEMATIC IN THE HYDRAULIC KITS PARTS AND SERVICE MANUAL, IF A SOLENOID IS REQUIRED.

4. TAKE PLASTIC CONTROL HANDLE (IF PURCHASED FROM SUPERIOR ENGINEERING) AND THREAD ON THE TRUCKS MAIN CONTROL VALVE SECTION THAT IS FOR THE ATTACHMENT. TIGHTEN THE LOCK SCREW IN THE THREADS OF HANDLE. CONNECT WIRES AS PER WIRING SCHEMATIC.

WARNING:

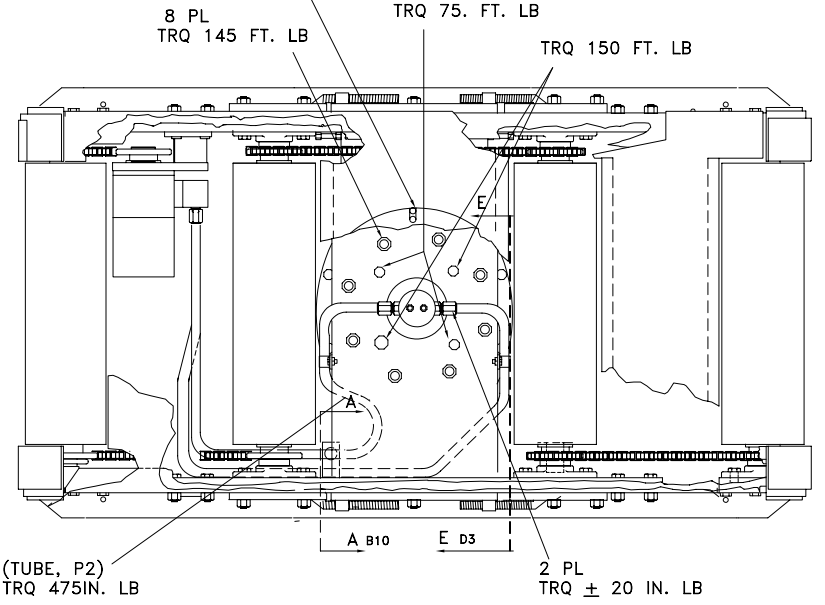
HYDRAULIC PRESSURE MUST NOT EXCEED 1800 PSI AND 5 GALLONS PER MINUTE. CONTACT FACTORY FOR OPTIONAL VALVES.

LUBRICATION AND TORQUE CHART



LUBE 4 PLACES
ALL BEARINGS
(BOTH SIDES)

LUBE RING BEARING
(4 PLACES)



PARTS

REF NO.	REQ'D	PART NO.	DESCRIPTION
1		(PLEASE REFER MANUAL PAGES 8 AND 9)	
2	2	306422	RAIL 42" SIDE RAIL
	2	306019	RAIL 48" SIDE RAIL
	2	306746	RAIL 54" SIDE RAIL
	2	306837	RAIL 60" SIDE RAIL
	2	304443	RAIL 66" SIDE RAIL
	2	304444	RAIL 72" SIDE RAIL
3	1	306027B	ROLLER MOTOR ASSY
4	4	304445	ROLLER 16" COVERED
	4	304445B	ROLLER 16" V-GUIDES
	4	306118	ROLLER 18" COVERED
	4	306118B	ROLLER 18" V-GUIDES
	4	306944	ROLLER 24" COVERED
	4	306944B	ROLLER 24" V-GUIDES
	4	306930	ROLLER 30" COVERED
	4	306930B	ROLLER 30" V-GUIDES
	4	306936	ROLLER 36" COVERED
	4	306936B	ROLLER 36" V-GUIDES
	4	306941	ROLLER 44" COVERED
	4	306941B	ROLLER 44" V-GUIDES
	4	306948	ROLLER 48" COVERED
	4	306948B	ROLLER 48" V-GUIDES
5	7	306084	SPROCKET
6	2	306175	STR., BRG. SPACER (RIGHT)
7	2	306217	STR., BRG. SPACER (LEFT)
8	4	306167	BEARING, INNER ROLLER
9	1	306225	CHAIN ASA #50 STD. X 48.12
10	2	306233	CHAIN ASA #50 STD. X 29.37
	2	306753	CHAIN ASA #50 STD. X 35.62
	2	306845	CHAIN ASA #50 STD. X 41.87
11	1	306241	CHAIN ASA #50 STD. X 15.62
	1	306761	CHAIN ASA #50 STD. X 21.87
	1	306852	CHAIN ASA #50 STD. X 28.12
12	19	010066	HEX HD C/SCREW, 1/2-13NC X 1-1/4
13	15	011635	HEX NUT, 1/2-13NC
14	2	306435	ADJUSTER PLATE
15	4	011015	HEX NUT, 3/8-16NC
16	3	038422	HEX HD C/SCREW, 1/2-13NC X 1-1/4
17	8	011049	HEX HD C/SCREW, 7/16-14NC X 3/4

062790NRO 6/1/95

REF. NO.	REQ'D	PART NO.	DESCRIPTION
18	8	011031	WASHER, FLAT 3/8
19	8	306258	CAPSCREW, 7/16-20NF HEX HDx1.75
20	8	306266	HEX NUT, FLANGE 7/16-20NF
26	8	033522	LUBE FITTING, 1/8-NPT, 45 DEG.
27R	2	306159R	BEARING, MOD. FLANGE (RIGHT)
27L	2	306159L	BEARING, MOD. FLANGE (LEFT)
32	2	054874	C/SCREW, 1/2-20NF X 1
41	4	306777	SIDE ADJUSTER WITH NUTS
42	2	306892	16" BELT SUPPORT
	2	306783	18" BELT SUPPORT
	2	306759	24" BELT SUPPORT
	2	306760	36" BELT SUPPORT



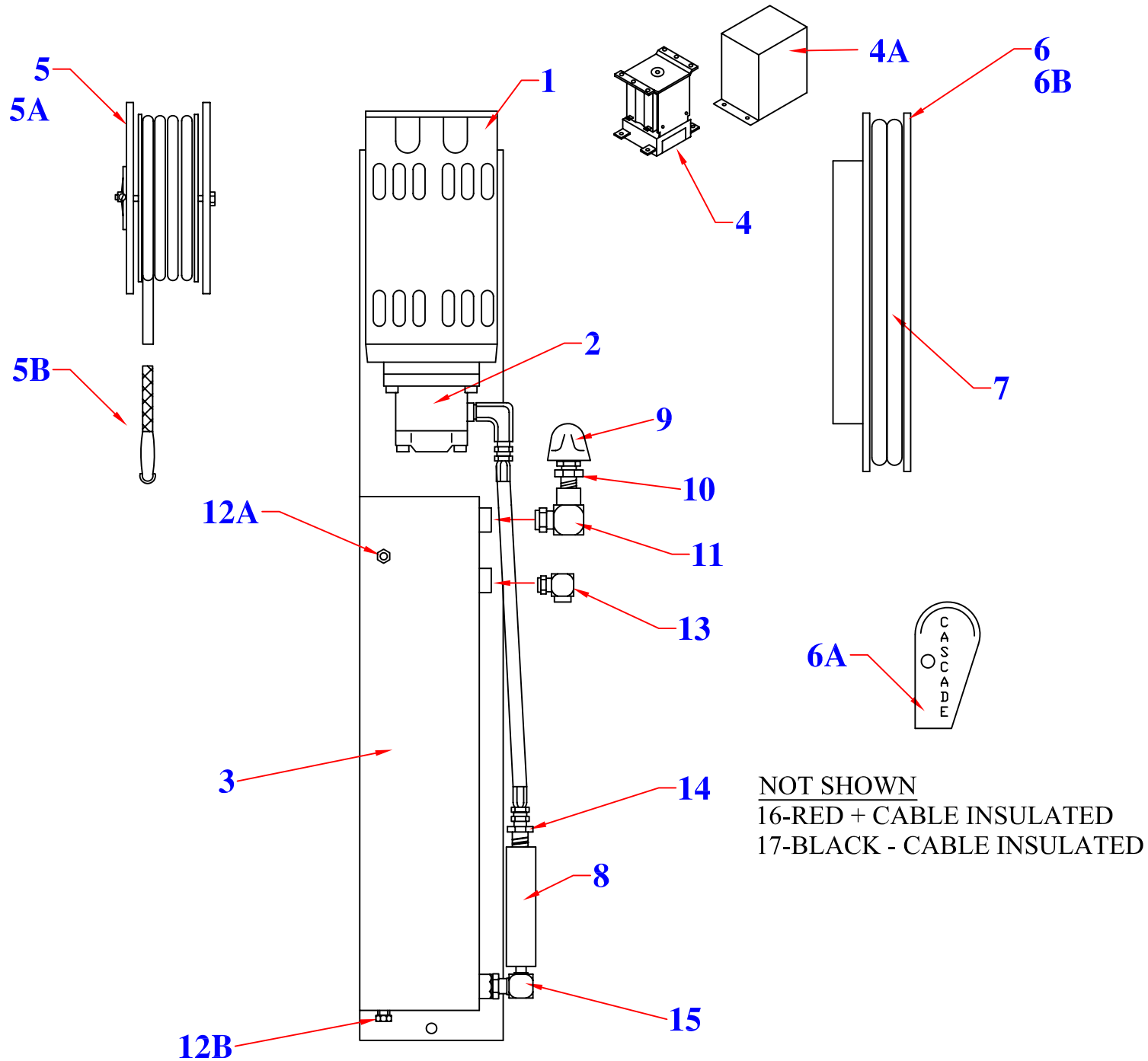
OPP-2, OPP-3 HYDRAULIC SYSTEM SERVICE AND PARTS MANUAL

MODEL NUMBER _____

SERIAL NUMBER _____

****WARNING** PRESSURE MUST NOT EXCEED 2000 PSI.
CONTACT FACTORY FOR OPTIONAL CROSS OVER RELIEF
VALVE IF PRESSURE EXCEEDS 2000 PSI.**

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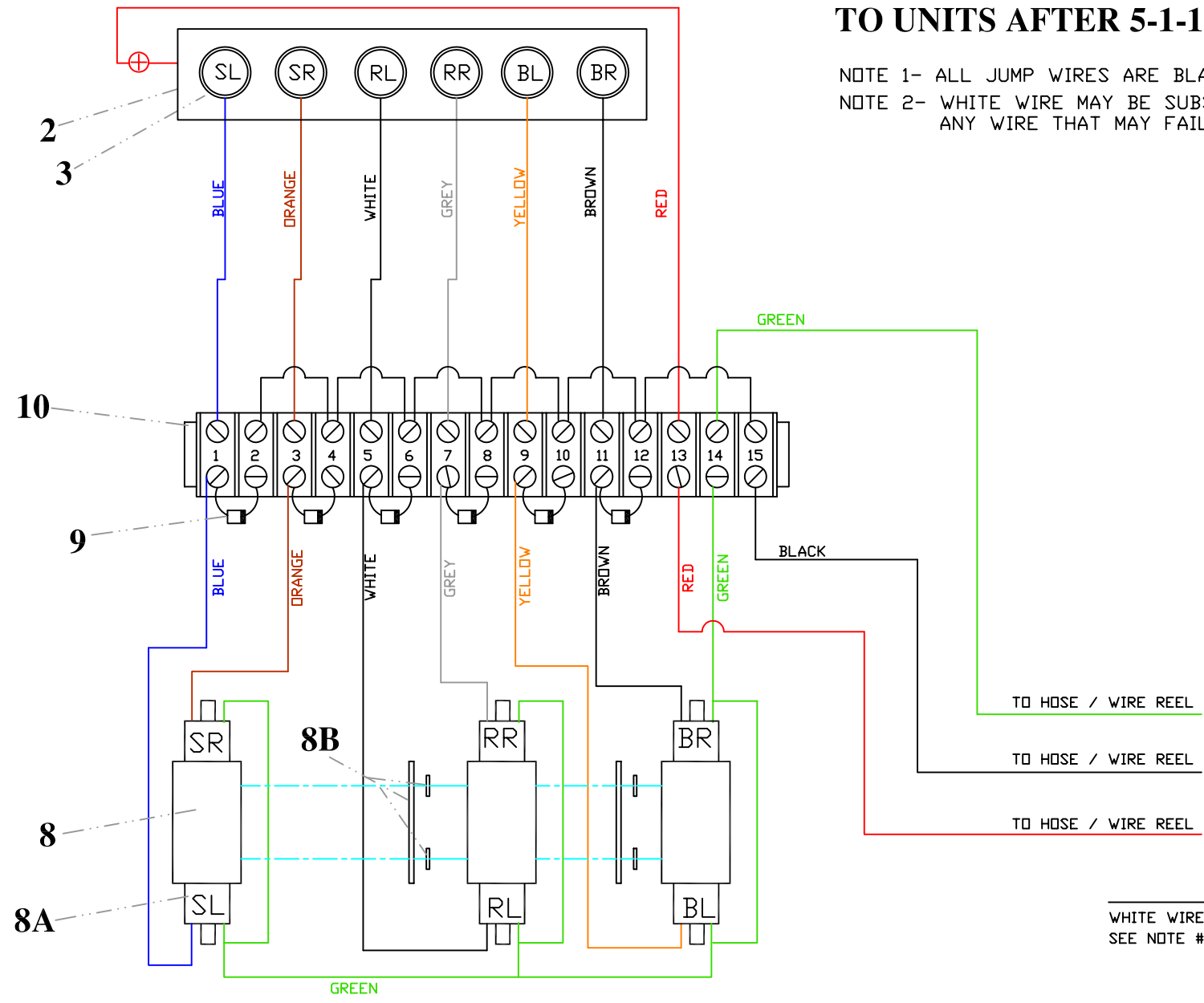
TITLE	
HYD. SYS. RES. SCHEMATIC	
PART NO./DWG NO.	
20633-SCHEM	
MATERIAL	
B.O.M.	
DATE	
12/17/97	
REVISION DATE:	
DRAWN BY	
MATTHEW S. LUSK	
ALL TOLERANCES	
.00 ±.030	
.000..... ±.010	
0/0..... ±1/16"	
ANGLES.. ±1/2°	
UNLESS OTHERWISE NOTED	
SCALE:	
PAPER SIZE:	A
NOTES	
QUANTITY:	

ORDER PICKER HYDRAULIC POWER PACK PARTS LIST

ITEM	PART NUMBER	DESCRIPTION
1	20616A	24 VOLT MOTOR
1	20616A-BK	BRUSH KITS
1	20617A	36 VOLT MOTOR
1	20617A-BK	BRUSH KITS
2	20634A	PUMP
3	20633	FRAME/RESEVOIR
4	20646	24 VOLT CONTACTOR
4	20647	36 VOLT CONTACTOR
4A	20648	CONTACTOR COVER
5	ER-1	WIRE REEL
5A	20624	REPLACEMENT BRUSHES FOR ER-1
5B	20625	CABLE RESTRAINT
6	HER-1	HOSE REEL-HYD. AND ELECTRIC
6	HRC-2	HOSE REEL-RIGHT MOUNT
6A	20645	JUNCTION BLOCK FOR HER-1
6A	HRC-4	JUNCTION BLOCK FOR HRC-2
6B	HER-2SK	SEAL KIT FOR HER-1
6B	HRC-2SK	SEAL KIT FOR HER-2
7	HRC-3	HOSE FOR HOSE REEL FOR HRC-2, 300" USABLE
7	HER-250	HOSE/WIRE FOR HER-1 246" USABLE
8	20635	IN-LINE SUCTION FILTER
9	20636	BREATHER CAP
10	0102-8-4	REDUCER, BREATHER
11	6805-10-8	90 DEGREE ELBOW
12A	05CP-6	OIL LEVEL PLUG
12B	05CP-6	DRAIN PLUG
13	2503-10-6	90 DEGREE, (RETURN PORT)
14	0103-8-6	ADAPTER, IN LINE FILTER
15	6806-10-8	90 DEGREE SUCTION PORT
16	20649	RED INSULATION BATTERY +
17	20650	BLACK INSULATION BATTERY -

WIRE COLORS ONLY CORRESPOND TO UNITS AFTER 5-1-1991.

NOTE 1- ALL JUMP WIRES ARE BLACK
 NOTE 2- WHITE WIRE MAY BE SUBSTITUTED FOR ANY WIRE THAT MAY FAIL IN THE REEL.



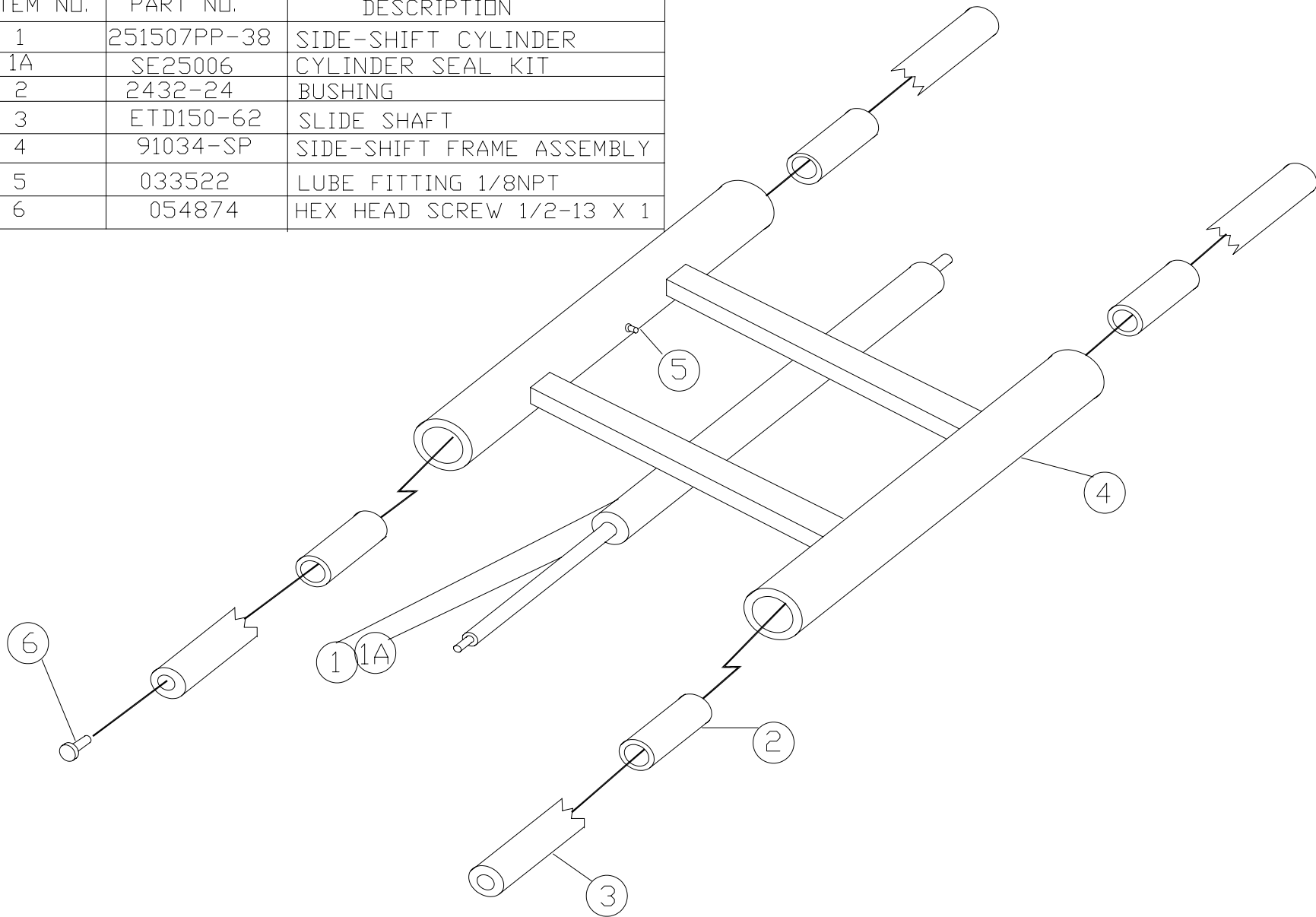
TO HOSE / WIRE REEL
 TO HOSE / WIRE REEL
 TO HOSE / WIRE REEL

SEE NEXT PAGE FOR REEL AND MOTOR/PUMP WIRING AND PARTS

WHITE WIRE FROM REEL
 SEE NOTE #2

TITLE		PART NO./DWG NO.		DRAWN BY		ALL TOLERANCES		NOTES		QUANTITY:	
WIRING DIAGRAM -OPP-2		OPP-2-WIRE		MATTHEW S. LUSK		.00 ±.030 .000..... ±.010 0/0..... ±1/16"					
MATERIAL	DATE	REVISION DATE:	SCALE:			ANGLES .. ±1/2°					
	1-17-01		PAPER SIZE:	A		UNLESS OTHERWISE NOTED					

SIDE SHIFTING ROLOADER-CYLINDER TYPE		
ITEM NO.	PART NO.	DESCRIPTION
1	251507PP-38	SIDE-SHIFT CYLINDER
1A	SE25006	CYLINDER SEAL KIT
2	2432-24	BUSHING
3	ETD150-62	SLIDE SHAFT
4	91034-SP	SIDE-SHIFT FRAME ASSEMBLY
5	033522	LUBE FITTING 1/8NPT
6	054874	HEX HEAD SCREW 1/2-13 X 1



SIDE RAILS

<u>ROLOADER LENGTH*</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
42"	2	3076422	RAIL 42" SIDE RAIL
48"	2	306019	RAIL 48" SIDE RAIL
54"	2	306746	RAIL 54" SIDE RAIL
60"	2	306837	RAIL 60" SIDE RAIL
60"	2	306837H	RAIL 60" SIDE RAIL (HEAVY DUTY)
66"	2	30443	RAIL 66" SIDE RAIL
66"	2	304443H	RAIL 66" SIDE RAIL (HEAVY DUTY)
72"	2	304444	RAIL 72" SIDE RAIL
72"	2	304444H	RAIL 72" SIDE RAIL (HEAVY DUTY)

ROLLERS

<u>ROLOADER WIDTH**</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
16"	4	304445	ROLLER 16" COVERED
16"	4	304445B	ROLLER 16" V-GUIDES
18"	4	306118	ROLLER 18" COVERED
18"	4	306118B	ROLLER 18" V-GUIDES
18"	4	306118H	ROLLER 18" V-GUIDES (HEAVY DUTY)
24"	4	306944	ROLLER 24" COVERED
24"	4	306944B	ROLLER 24" V-GUIDES
24"	4	306944H	ROLLER 24" V-GUIDES (HEAVY DUTY)
30"	4	306930	ROLLER 30" COVERED
30"	4	306930B	ROLLER 30" V-GUIDES
36"	4	306936	ROLLER 36" COVERED
36"	4	306936B	ROLLER 36" V-GUIDES
44"	4	306941	ROLLER 44" COVERED
44"	4	306941B	ROLLER 44" V-GUIDES
48"	4	306948	ROLLER 48" COVERED
48"	4	306948B	ROLLER 48" V-GUIDES

BELTS

<u>ROL. MODEL</u>	<u>STANDARD</u>	<u>NON-MARKING</u>	<u>HEAVY DUTY</u>
1842	B17.535	PG17.535	H17.535
1848	B17.535	PG17.535	H17.535
1854	B17.541	PG17.541	H17.541
1860	B17.547	PG17.547	H17.547
1866	B17.553	PG17.553	H17.553
1872	B17.559	PG17.559	H17.559
2442	B23.535	PG23.535	H23.535
2448	B23.535	PG23.535	H23.535
2454	B23.541	PG23.541	H23.541
2460	B23.547	PG23.547	H23.541
2466	B23.553	PG23.553	H23.553
2472	B23.559	PG23.559	H23.559
3642	B35.535	PG35.535	H23.535
3648	B35.535	PG35.535	H23.535
3654	B35.541	PG35.541	H35.541
3660	B35.547	PG35.547	H35.547
3666	B35.553	PG35.553	H35.553
3672	B35.559	PF35.559	H35.559
4860P			H47.558.375

*ROLOADER LENGTH DETERMINED BY LAST 2 DIGITS OF MODEL NO.

**ROLOADER WIDTH DETERMINED BY FIRST 2 DIGITS OF MODEL NO.

1-27-98

NON - ROTATING ROLOADER
RECOMENDED SPARE PARTS LIST

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
*	BELT	1
306159L	MOD. FLANGE BEARING, LEFT	1
306159R	MOD. FLANGE BERING, RIGHT	1
SE25006	CYL. SEAL KIT	2
306027BSK	MOTOR SEAL KIT	1
2432-24	BUSHING	2
306167	FLANGE BEARING	

* SEE PAGE 24